

Field Trip No. 22.

North-western N. S. W. and south-western Queensland

October - November 1949

L. J. Chinick



T. Gmavis, T. Common. D<sup>o</sup>. Paramonco. S. G. G. G.  
L. Chinnick L. Mayo. L. H. Poffety

Left Canberra 20-10-49. Mileage 7154

Left Trangie 21-10-49. Mileage 7474

7491

*Pycnostichus signatus*, *Austroicetes interioris*  
E. populifolia - E. glauca association. Dominant  
tree species *Euphorbia parviflora* (Willow) E. populifolia  
and E. glauca having been rung. Pasture consisting  
of an excellent stand of Stg. (*Stipa pulchra*)  
E. lt (*E. liliifolia* - *truncata*) with E. la (*E. liliifolia* -  
*acicularis*) E. dc (*E. nodum cynosuroides*) and Sic  
(*Sida corrugata*) occurring as occasionals.  
Soil - unimproved light country.

N.B. High population of E. h. terminifera nymphs  
2-3 ad inst at present (swarm formation possible).

7530.

Pyngan. - Owing to heavy rains no further  
collecting stops attempted between 7491 - 7530.

7532

Left Pyngan.

7536.

*Euphorbia* sp., *Gonolobus* sp., *Dedalus australis*, *Azidota* sp.,  
E. populifolia - E. glauca association. Dominant  
tree species being *E. glauca*, *E. populifolia*,  
*Chortoicetes* *terminifera*, *Austroicetes* *interioris*  
Trees occurring as occasionals *Euphorbia parviflora*  
and *Acacia excelsa*. Pasture consisted of a dense  
stand of Stg. with E. lt and E. lb (*E. liliifolia* - *hemisphaerica*)  
and Sic as subordinate spp. Area having numerous  
small scalds up to 10 sq. yds scattered throughout.  
Scalds present particularly under or in the near  
vicinity of the trees. Soil - red loam.



7546.

<sup>Genus nov. 5(?), *Peckesia fuscomaculata*, *Chrostochloa*  
*peruviana*, *Austrochloa cruciata*</sup>  
*C. populifolia* - *C. glauca* association. Dominant  
 trees in open parkland formation *C. populifolia*  
 and *H. elaeagnifolium* with *Yarran* occurring as  
 an occasional. Soil red myall type with the  
 presence of shallow gilgais. Pasture not uniform  
 with dominant species occurring in clumps up  
 to 40 ft. in diam. Gilgai areas supporting a  
 dense mat of *Vul* with *B. agl* (*B. aspera* *gynandrus*)  
 appearing on the outer margins.

On the shaly area (in predominance) *L. ann*  
 (*Centauria militensis*) together with *Vul* and *H. pc*  
 (*Helipterum corymbosum*) occurred in patches  
 with other (patches) clumps composed chiefly of  
*Agg* (*Atriplex scabra*) *Alb* (*Albida minima*)  
 and *H. pc*. Other plants occurring as occasional  
 over the whole area were *bla* and *Set*  
 (*Centipeda thespidoides*)

7556.

<sup>Genus nov. 5(?), *Peckesia fuscomaculata*, *Amisaguthulosa*,  
*Austrochloa cruciata*</sup>  
*C. populifolia* - *C. glauca* association. The dominant  
 two species being *C. populifolia*. Others  
 occurring as occasionals being *H. elaeagnifolium*  
 and *Teremophila Mitchellii*.

Pasture had been badly overgrazed with  
*Sty* and *Grif* (*Aristida stricta*) as  
 co-dominants. Soil - Compact light  
 red loam.

7566

<sup>*Longica sp.*, *Didalium angustis*, *Dualitta maculata*,  
*Chrostochloa peruviana*, *Austrochloa cruciata*</sup>  
*C. populifolia* - *C. glauca* association. Dominant  
 trees being *C. populifolia*. This site situated on the  
 top of a low red gravelly rise. At the bottom of the slope  
*Pycnostichus serratus*, *Peckesia fuscomaculata*.



*Eremophila Mitchellii* and *Cassia eremophila* were co-dominant shrubs under thick *C. populifolia*. The pasture was made up of patches of tall grasses interspersed with gravelly scolds. These were prominent on the top & slopes of the rise. Pasture composed of tall tussocks of *Stipa fulcata*, *Aristida perichloensis* and *Paspalidium gracile*. *Paspalidium* becoming more prominent down the slope.

7576

*Peckia fuscocomaculata*  
*C. populifolia* - *C. glauca* association. Dominant trees being *C. populifolia* and *C. glauca*, with *C. intertexta*, *Eremophila Mitchellii* and *Aet. oleophilum* occurring as occasionals. The pasture consisted of a dense sward of *Stipa fulcata* with *Atriplex leptocarpum* as subordinate species. The tree density approaching that of virgin state (Savannah woodland). Soil - red loam with some scald areas present.

7586

*Peckia fuscocomaculata*  
*C. intertexta* associes. Trees in open parkland formation. Pasture consisting of a tall stand of *Stipa fulcata* and *Aristida perichloensis* as co-dominants with *Atriplex pectinata*, *Paspalidium gracile*, *Rhagodia nutans* and *Trichinum obovatum* as occasionals. Soil - red loam. A species of *Eremophila longifolia*? also present as odd shrubs.

7595

*Macrolophosia* sp., *Coryphantha* sp., *Gonolobus* sp., *Adelopus* camped. *C. populifolia*, *C. intertexta* present as co-dominants with a small-flowered *Eremophila* species as a bushy shrub. Much scalding evident under and between trees. Practically no pasture present except for isolated clumps of *Stipa fulcata* and a general scattering of *Helipterum corymbifolium*. *Tamulus*, *Schizobothrus flavovittatus*, *Pycnostictus seriatus*, *Ulmia guttulosa*, *Austroicetes arida*



7596. Left for Bourke non-stop. Continual heavy rain made collecting impossible.

7664

Arrived Bourke.

7666

*Acrida conica*, *Pyrrhuloxia serripes*, *Urosalpinx gutturosa*.  
2 miles along the road to Nth Bourke. Collecting area—  
shallow cowl with *C. coolibah* the only tree species  
present. Pasture—dense *Chloris truncata* with a scattered  
cover of tall *Verbena supina*.

7668

4 miles along the road to Nth Bourke. Eastern side of the  
approach to the bridge over the River Darling. Collecting  
area in an eroded washaway leading into the river. Upper  
banks bare. In the base of the gully, pasture dense,  
consisting chiefly of *Eragrostis setifolia*, *Bassia quinquecuspis*,  
*Bassia Burchii* and *Verbena supina*. On the tops of the  
bank of the gully heavily grazed *Eragrostis setifolia* present.

7672

Back to Bourke.

7683

Left Bourke for trip along the Barrington Road.

7695

12 miles Nth of Bourke along the Barrington road. Situation  
typical outback centre country. Low shallow gilgai  
area occupying approx 2 acres surrounded by red loam  
light country. Tall *Eragrostis setifolia* being the main  
grass on the gilgai area. *C. coolibah* present around the  
edges and occasional tree within the gilgai area.  
Light country supporting *Acacia cambridgei*—in this case  
most of which had been rung. Vegetation on the light



country sparse. Numerous bands (21 counted) of *Bh. terminifera* present in 2-3rd instar stage. Bands in each case only occupying small areas of from 2-6 sq yds. Appeared to have been locally produced. [Probably as feed dries off, these small bands all of which were occupying positions within the food-shelter habitat will come together to form an active swarm].

7708 *Valanga irregularis*  
Arrived back at Bourke. Specimens caught attacking peaches on a tree in the yard of the Oxford Hotel.

7709 Left Bourke - Trip back towards Byrock.

7722 *Pycnostictus scirpatus*, *Peakesia fasciculata*,  
Flood plain - Trees of Coolibah with wattle & bicolor present.  
*Choristictes terminifera*, *Austroicetes pusilla*, *A. interioris*  
Soil - heavy black clay loam. Dominant pasture species  
*Eragrostis setifolia*, *Bassia bicornis* with *Helipterum*  
*corybifolium* and *Goodenia* sp. as occasional. *Bh.*  
*terminifera* present in the solitary phase represented both  
by flyers and nymphs.

7729 *Macrolophus* sp., *Ephraura* sp., *Coryphoctes* sp.,  
camped. *E. populifolia* - *Acacia* association. Dominant  
*Aphelocheilichia obtusifolia*, *Oedgallus angustatus*,  
Trees *A. excelsoi*, *Hel. oleifolium* & *populifolia*, *Grevillea*  
*Edinboroughii*, *gleuystylaria*, *Pycnostictus scirpatus*,  
*striata* with odd trees of *Leucaena parviflora* and isolated clumps  
of *Peakesia fasciculata*, *Crucian guthulosa*,  
*Eremophila* (unknown species) Soil - red sand loam. On slight  
*Macrotaraxa* sp., *Austroicetes interioris*  
sandy rises *Anatida fericohensis* was dominant with scattered  
tussocks of *Eragrostis setifolia*. In isolated low spots *Eragrostis*  
*setifolia* and *Themida arvensis* were the main pasture species  
with *Dacrydium sericeum* as the main subordinate species

7728 Left Bourke for Wanaaring.



7756

*Pygmaeobichus seriatus*  
 Junction of Hungerford - Wanaaring Rd. Edge of flood plain  
 Dominant trees - *E. populifolia* and *E. boolebali*. Pasture -  
 low cover mainly of *Chloris truncata* and *Brachypogon nigricans*.  
 Soil - red loam suspected to scalding in small patches.

7758

*Acacia guthulosa*, *Zabroala* sp., *Umnisa*  
*Astrelba lappacea* association - treeless plain. *Astrelba*  
~~*guthulosa*, *Chrostroctes tenuifera*~~  
 completely eaten out. Dominant pasture species being  
*Calocephalus Sanderi* with odd plants of *Eragrostis japonica*  
 present in isolated spots. Soil heavy grey self-mulching loam.  
 No ants. Pasture dry except for odd *Bassia*? bushes.

7762

*Pygmaeobichus seriatus*, *Umnisa guthulosa*  
*Acacia cambagei* association. Area badly scalded with a  
 good cover of *Koehia pyramidata* bushes 2-3 ft high. Soil  
 red sandy loam. On the left hand side of road area badly  
 overgrazed *Koehia* absent and main species being *Chloris*  
*truncata* and *Centaurea melitensis*. Soil red sandy loam.  
 scald very hard.

7772

*Goniacia* sp., *Pygmaeobichus seriatus*, *Umnisa* nov. 16(?)  
*E. populifolia* - *Acacia* association. Site on slight sandy rise.  
~~*Umnisa guthulosa*, *Azcoloba* sp.~~  
 Dominant trees - *Acacia cambagei*, *Casuarina lepidophloia*,  
*E. populifolia*, *Doodanea* spp. with an occasional *Geijera*  
*parriflora* and *Eremophila Mitchellii*. On the sandy ridge  
*Eragrostis setifolia* was dominant in thick clumps, under  
 the trees little herbage was evident - *Chen. atriplicium*  
 dominant with odd plants of *Rhagodia nutans*.

7782

*Umnisa guthulosa*, *Azcoloba* sp.  
 Base of slight sandy ridge. *E. populifolia* - *Acacia* association  
*E. populifolia* dominant in depressions, on the rise *Balea*  
*leucoptera* and *Eremophila* being prominent. None or little  
 pasture present. Odd clumps of *Eragrostis setifolia* appearing on



the crest of the sand ridge. Odd *Stipa setacea* plants present in low lying spots.

7792

7793: *Coryphochloa* sp., *Pycnostictus seriatius*,  
Had to turn back 1 mile to make suitable camp site. 7793  
*Utricularia*, *Guthriea*  
On the following morning drove back to flood plain of  
the Warrego 7795.

7795

*Coryphochloa* sp., *Distolopis tannulus*, *Chloricarpa*  
Flood plain of the Warrego. *Atriplex vesicaria* association.  
*Leptochloa*, *Austrotridax interioris*  
Sparse *Atriplex* with *Bassia quinquevulva* and stunted  
*Calceophthalus Sonderi* forming the pasture. Dead *E. boodibah*  
dotted on the area. Soil - grey self mulching loam.

77801.

Site of previous night's camp equal in forward trip  
to 7793.

77805

*Distolopis tannulus*  
*Atriplex vesicaria* association. Dominant species  
*Atriplex vesicaria*, *Eragrostis setifolia* and some *Calceophthalus*  
*Sonderi*. Soil - grey self mulching. Odd plants of *Atriplex*  
*leptocarpa* also present.

77815

*Callitula* sp., *Morpha asinus*, *Oedaleya australis*,  
*Eucalyptus populifolia* - *Acacia* association. Dominant  
trees *Acacia excelsa*, *Acacia* *excelsa*, *Acacia* *excelsa* and *Eremophila* spp.  
*Distolopis tannulus*, *Pycnostictus seriatius*  
Sand ridge and clay pan area. Grey pan under water.  
*Eragrostis australasica* on the table drain. Sand ridge  
red sand. Dominant grass (specimen) together with  
*Argemone mexicana* (Mexican poppy).

7825

*Morpha asinus*, *Euphorbia* spp., *Coniaca* spp.,  
*E. populifolia* - *Acacia* association. Dominant trees *E. pop.*  
*Oedaleya australis*, *Pycnostictus seriatius*,  
*Acacia excelsa*, *Grevillea striata* and odd bushes of  
*Peckezia justomaculata*, *Utricularia guthriei*  
*Eremophila* spp. Dominant pasture species - *Eragrostis setifolia*



*Typa sp.*, *Chorizandra tenuifera*  
and *Arctida ferechensis*. Soil - red compact loam. Area  
badly overgrazed.

7835

*Uromyza guttulosa*, *Pycnostichus seriatus*,  
*Acacia cambagei* association. Dominant trees *Acacia*  
*cambagei*, *Peucephyia fuscopunctata*  
*Det. cleofolium* with under shrubs of *Eremophila* spp.  
Dominant species (as for 7815). Soil - red sandy loam.

Some *Dicranthium sericum* present on crests of small sand  
rise. *Eragrostis japonica* on the small clay pan areas.  
Moracic effect of sand rises and clay pans with the majority  
of clay pans bare or lightly vegetated.

7845

*Acacia aneura* association - sand ridge clay pan area.  
*seriatus*, *Peucephyia fuscopunctata*, *Uromyza*  
dominant trees *Acacia aneura*, *Det. cleofolium*. On the  
clay pans, *E. populiifolia* and *Natua leucoptera* present with  
the dominant tree being *Acacia aneura*. On the clay pan  
area dominant pasture species being *Arctida Behriana*,  
*Arctida ferechensis* and *Digitaria Brownii*. On the sand  
ridges *Arctida ferechensis* and *Eragrostis setifolia* forming  
the major ground cover.

7855

Common-Rick: *Pycnostichus seriatus*, *Chorizandra tenuifera*, *Uromyza guttulosa*.

7867

*Acacia aneura* association. Dominant tree species *Acacia*  
*aneura*, *Goodenia*, *Eremophila* spp. Pasture - *Eragrostis*  
*setifolia*, *Arctida ferechensis* and *Sida pedunculata* with  
*Goodenia* spp as occasional. Loose red sand.

7873

*Moraba asiatica*, *Pycnostichus seriatus*,  
*Uromyza guttulosa* association - marginal strip along  
either side of river (Parr). Dominant trees *E. bicolor* and  
*Muehlenbeckia bunnghamii*. Pasture nil - scalded & eroded -  
gulch full of water from rising river and heavy rains.  
Back from the river to a sand rise. Trees - odd *E. bicolor*, *Goodenia*



sphs. and *Atalaya hemiglauc.* Pasture - *Eragrostis japonica* dominant.

7889

*Acacia* <sup>*Acacia conica*, *Pyragrostis*, *serigatus*,  
*serigatus* nov. 16(?)</sup> association. Dominant trees *A. anura*,  
*H. erecta*, *H. leucophaea* with occasional *Dodonea* and  
*Eremophila* spp. <sup>*Stylota* sp., *Chorizandra tenuifera*</sup> Pasture - clumps of *Aristida calycina*,  
*Aristida perichensis*, *Eragrostis setifolia* and *Lida* spp.  
Soil - loose red sand ~~and~~ on scalded areas the subsoil being  
a heavy hard red loam. [Mulgany Box]

7897

Homestead.

7899

*Morpha asinus*, *Euphorbia* sp., *Goucardia* sp.,  
*E. populifolia* - *Acacia* association. Dominant trees *A. anura*,  
*Stylota* sp., *Chorizandra tenuifera*, *Peckia guacamulata*,  
*E. populifolia* with *Cassia eremophila* and occasional *Dodonea*,  
*Stylota* sp., *Chorizandra tenuifera*, *Urtica guthrieana*, *Stylota* sp.  
Clumps of *Eragrostis setifolia* and *Aristida calycina* formed the  
dominant pasture species with *Trichium* spp., *Euphorbia*  
*Dremondii* and *Goucardia* spp. occurring as occasionals.

7904

Ursino Homestead.

7909

*Morpha asinus*, *Euphorbia* sp., *Stylota* sp.,  
*Acacia* - *E. populifolia* association. Dominant trees - *A. anura*,  
*Stylota* sp., *Chorizandra tenuifera*, *Peckia guacamulata*,  
*E. populifolia* and *Cassia eremophila*. Clay pan - sand ridge  
formation. The clay pan area being predominantly scalded,  
*Urtica guthrieana*, *Chorizandra tenuifera*,  
the little vegetation present composed of *Salsola Kali* and a  
*Helipterum* spp. with odd plants of *Eragrostis setifolia*,  
*Eragrostis japonica* and *Aristida perichensis*. On the sand  
ridge *Eragrostis setifolia* dominant with odd plants of both  
*Aristida perichensis* and *Aristida calycina* with scattered tufts  
of *Stipa fulcata*.



7919

*Acacia drepanolobium* association. Dominant trees *A. drepanolobium* and *A. robusta*, with under shrubs of *Cassia edmonstonei*. Pasture - *Eragrostis setifolia* dominant with *Eragrostis japonica* and *Andropogon furcatus* as subordinate species, with *Eragrostis setifolia* occasional. Soil red sandy loam.

7925

High population of flying *Crane*.

7929

*Acacia drepanolobium* association. Dominant trees - *A. drepanolobium* and *Atalaya hirsuta*. Pasture - mainly *Neurachne* spp. and *Andropogon furcatus* with *Eragrostis parviflora*, *Chloris* spp. and *Eragrostis setifolia* as occasional. Soil red sandy loam. [1 mile long]. Good grazing country with small seeds present in low lying areas. High population of *Lb. formicifera* flies and 3<sup>rd</sup> instar nymphs.

7930

Latent gibber rise. No trees present. Main pasture species being *Eragrostis setifolia*, *Chloris* spp., *Neurachne* spp. with small clumps of *Andropogon furcatus* and odd bushes of *Bassia lanicarpa*.

7944

Camped. Oracca Bore. Bands of 4<sup>th</sup> & 5<sup>th</sup> instar *Lb. formicifera* nymphs. Site - a sandy flat between two gibber rises with a flood creek running through the flat. Along the creek banks and flood channels *Eragrostis australasica* dominant with *Eragrostis parviflora*, *Panicum decompositum*, *Eragrostis japonica* and *Neurachne* spp. as subordinate vegetation. Under favorable conditions probably acts as an outbreak area centre [present time].



7949

Boronia Downs Homestead [near homestead]

7951

Box.

7952

*Acacia* *uncura* *casuarina* - Dominant trees *Cremophila* spp. and *A. uncinata*. Blanked to a great extent for grazing, a sand and clay floor. Major pasture species - *Bassia lanicarpa*, *Rochea* spp., *Eragrostis japonica* with *Setaria* *hale* and *Paspalum* *debrae*.

7968

Red sandy plain - *Plenderson* - *Atalaya* *arborescens*. Dominant trees *A. hemiglaucous*, *Cremophila* spp., *A. uncinata* with an occasional *Plenderson* *maculosa* tree. *A. uncinata* *indefloris*

Sandy open grazing land with all species of trees except *Cremophila* in clumps. Pasture low and moderately good, with dominant species being *Bassia lanicarpa*, *Chloris* *truncata*, *Atriplex* *parvifolia*, *Conyza* *capensis* with odd tussocks of both *Eragrostis* *setifolia* and *japonica*. On this area small gregarious bands of *Ch. formicifera* were present [2-3 m. nests]. Outbreak of this type of country not evident in near vicinity of this collecting site.

7970

Box and Shearing sheds.

7972

Box Station.

7986

*Acacia* *uncura* *casuarina* n. Sand ridge, clay floor complex. Dominant trees - *Atalaya* *hemiglaucous*, *A. uncinata*. Area extensively cleared. Dominant pasture species - *Atriplex* *parvifolia*, *Atriplex* *parvifolia*, *Rochea* spp., *Bassia*



with *Eragrostis* in the hollows. Permanent decomposition and *Helipterum* ssp. occurring as occasional.

7991

Salisbury Downs.

8001

Bulloo Overflow. Narrow crossing between actual Bulloo Overflow and Salisbury Lake. [Logged twice on Decade and once with Weapon barrel. Actual crossing through dry swamp areas of *Eragrostis australasica*.

8005

Blifton Bore?

8017

Sand ridge - clay pan formation. *Acacia* ~~association~~ <sup>*terminalis*</sup>. Dominant trees *Hamacra* with *H. leucostoma* as an occasional on the sand ridge. A species of *Eucalypt* occurring at the base of the sand hill & clay pan area. Pasture entirely annual consisting of a dense stand mat of *Salsola Kali* with *Senecio* spp. as the only living cover. This was thick and confined to the sand ridge only. On the clay pan area *Croceopogon nigricans* and an *Helipterum* spp. formed the main sward cover. *Whyjonta*

? 8020

8027

~~8022~~

Blifton Downs [No one at home]

8028

Limeh. *Cremophila* associates of *Acacia* ~~association~~ <sup>*terminalis*</sup>. A complex of small raised sand dunes stabilised by a *Kochia* spp. and *Chen. opuntiformis*, with *Salsola Kali*, *Croceopogon nigricans* and odd clumps of *Eragrostis*. *Dallis* as supporting species. Small areas of pulley scald appearing intermittently throughout the sand dune area.







Old clumps of *Astrelia lappacea* present on shallow scattered creek holes. Other species occurring as occasional being *Trehoum* spp., *Calotes hispidula* and *Phyllanthia procumbens*.

8108

Turn off to Olive Downs.

8114

Border fence [Warr. Warr. Gate]

8115

Warr. Warr. flood plain: - slight sandy ridges and clay pan formation. Clay pan area bare. Sandy ridge and flood plain covered with good density of pasture species. Grass and grass being *Cynodon Dactylon* with *Setaria* annuals and perennials consisting of *Bambusa* *lucida*, *Salicornia* *halimifolia* and *Lepidium* spp. *Samolus* *decompositus* being dominant of the flooded area. This species also occurred on the sandy areas together with *Astrelia lappacea* as occasional. *Neotoma glauca* appearing with *Hakea leucostoma* as individual shrubs on the sand ridges.

8129

*Complexities of the area*  
*Acacia aneura* association [including plant community of creek area] *S. boobiah* & *Camaldulensis* lining the creek banks; on the small flood channels *Dodonaea attenuata*, *Acacia* spp. with odd tree of *Hakea* *foemina* became the main shrub formation with *Acacia aneura* becoming dominant away from the actual creek area. Pasture composed of *Andropogon* *procerus* with odd clumps of *Cynodon setifolius* and *Bambusa diffusa*.

8135

Old Nanydes - turn off for Nappamery.



8136

*Capriales* sp., *Repleta* sp., *Peate* sp.  
 Tightly downy: - Trees. Main pasture being  
*Atriplex spongiosa* with odd clumps of *Salsola* *halimifolia*  
*Catalpa bispida*, *Bassia lanacarpa* with occasional  
 plants of *Plantago* *canadensis* and *Portulaca* *olivacea*.

8140

*Acacia* *anura* association. Large flood clay pan area  
 with red sand ridges on the eastern side. *Acacia*  
*anura* on the ridges down to the edge of the clay  
 pan area being mostly dense. Clay pan covered with  
 Wild spinach (*Tetragonia* *expansa*) with odd clumps of  
*Eragrostis* *setifolia*. On the sand ridge *Trichium*  
*obovatum* being dominant together with *Eragrostis*  
*expansa* and *Arctida* *periclymenia* with *Heliotropium* sp.  
 present as an occasional.

8145

*Acacia* *anura* - *Atalaya* *hemiglaucis* *associates*. Red sand  
 ridges & clay pan formation. On some ridges, *Hakea*  
*leucoptera*, *Acacia* *anura*, *Atalaya* *hemiglaucis* and  
*Acacia* *tetragoniophylla* being the principal trees, with  
*E. coolibah* growing around the edges of the clay pan.  
 Pasture on the clay pan composed nearly entirely  
 of *Tetragonia* *expansa* and *Atriplex* *halimifolia* with odd  
 tufts of *Eragrostis* *japonica*. On the ridge *Trichium*  
*obovatum* with odd tufts of *Eragrostis* *setifolia* and  
*Wahlenbergia* *gracilis*.

8150

<sup>ridge</sup> Sand with odd clumps of *Trichium* [first appearance  
 of this species] *Hakea* *leucoptera* and *Acacia* *anura*,  
 being the only tree species. The only pasture species being  
*Arctida* *periclymenia*.

8155

Common - Pick. : *Capriales* sp., *Uromyces* *guthriei*.



8162

barren — between Navajillo and Orientos. High population of *Ah. tenuifera* present in the eastern. Area consisting of a sandy ridge with a flood clay pan area down the slope. Some small scald areas existing between the run-out of the sand-ridge and the commencement of the clay pan area. *Acaea urens* on the sand slope with *Eucalyptus bogotensis* around the outer limits of the clay pan. Area cannot be regarded as a potential outbreak centre as the food shelter habitat was not existent. The high population could be due either to two factors — (1) the population may be due to post-natal increase from the previous autumn population or — (2) emigrant swarms laying from preceding generation [swarms (seen) observed during May trip at this approx latitude on the Navajillo-Blansby trip]. Growth of pasture on the sandy ridge composed entirely of *Emmenanthe rigida* (short leaved).

8167

Sandy-ridge <sup>*Pyrausta nigrifera*, *Pyrausta guttulosa*, *Pyrausta nigrifera*, *Pyrausta guttulosa*, *Pyrausta nigrifera*, *Pyrausta guttulosa*</sup> *Atalaya hemiglaucal* — *A. aurea* associated, with *Tridax* spp. on the crest of the sand ridge. Prominent pasture species being *Salsola australis* probably var. *strobilifera*, *Trichium obtusum* with *Sida* spp. and *Euphorbia drummondii* as occasional. *Hakea leucoptera* also occurring as odd trees among *A. aurea* on the lower slope of the sand ridge. notes on 92/88 (2) <sup>*Conura nigrifera*, *Conura guttulosa*, *Conura nigrifera*, *Conura guttulosa*, *Conura nigrifera*, *Conura guttulosa*</sup> *Conura nigrifera*, *Conura guttulosa*, *Conura nigrifera*, *Conura guttulosa*, *Conura nigrifera*, *Conura guttulosa*.

8172

8175

*Ah. tenuifera* swarms, evident. Large flood flat from adjacent creek area. Excellent outbreak centre conditions evident. A dense stand of *Panicum decompositum* forming an excellent food shelter habitat. On adjacent



disposition site, *Atriplex confertifolia*, *Bassia bicoloris* and *Delphinium* spp. formed the main cover. Along the creek *Eucalyptus boottiana* and *Commersonia* spp. formed the chief tree cover.

8182

Common-Rick

8185

Sand ridge formation. *Atalapha hemisphaerica* dominant. *Tridax* again associated with the crest of the sand hill. Dominant pasture spp. being *Trichium obovatum*, *Bassia* spp. and *Scariosa* spp.

8199

*Atalapha hemisphaerica* - *A. arbuscula* associated with an odd tree of *Eucalyptus ochrophloea* present. Pasture composed of almost entirely *Munroa* spp. with odd clumps of *Verbena supina* present.

8200

Turn off to Vajiamerri.

8203

Oreator, homestead. 8206 - 8200, on forward trip.

8209

Stony rise. Pasture almost entirely *Salicula australis* var. *strobilifera* with odd clumps of *Commersonia nigrescens*.

8211

Camped.

8217

Pebbly downs. Main pasture species being *Bassia divaricata*, *Bassia lancastrae*, *Atriplex spongiosa* and *Salicula Kala*.

8223

Sandy flat with numerous flood channels leading into an adjacent creek. Tree species being situated *Acacia*



*Tetragonaphylla* and *Atalaya hemiglauca* with an odd tree of *Grevillea striata*. Pasture almost entirely *Monarda* spp. with occasional clumps of *Salsola Kali* with *Aristida perichensis* and *Boerhaavia diffusa* as occasional.

8227 *A. amara* association. Dominant trees/species being *A. amara* with odd trees of *Grevillea striata* and *Mitrasacme*. *Eucalyptus pyrocephala* appearing as some occasional single trees. Pasture - mainly annual being composed of *Trichium obovatum*, *Brachycome* spp. together with *Malvastrum spicatum*. Odd tussocks of *Aristida perichensis*, *Eragrostis setifolia*. On the crest of a nearby sandhill *Trochilium* spp. and *Salsola australis* being prominent.

8235 Common high notes on 62/88(d). *Leptochloa* spp.

8242 Lateitic plain bordering a creek sand plain. On the sand plain *Eragrostis Dielsii* being practically the only component. On the gibber plain *Bassia lanceolata* and *B. divaricata* together with odd clumps of *Aristida pectinata* in isolated crab-holes formed the main cover.

8257

~~8257~~ Gibber downs: - *A. lappacea* in isolated large clumps with *Atropleura spongiosa* & *sericea*. Together with small plants of *Eragrostis japonica* & *Bassia* spp. (probably *divaricata*). Area open & treeless with dense small gibbers over whole site.

8267

Nappamerrie Sandhill formation away from Cooper's Creek. Camped just below homestead of the bank of the



each. (See report of outbreak conditions in this area on separate log.) Express back from this point to the turn off to Yanko on the Nanyileo - Nappamerie road. Collecting started again at this point. 8383. Tuesday 8/10/69.

- 8388 First collecting point following the turn off at 8383.  
*Acacia anura* association. Sand ridge - clay pan  
 formation. Dominant trees in the area being *Acacia*  
*anura* with an occasional tree of the following  
*Grevillea striata* & *Acacia tetragonophylla*. Pasture  
 composed chiefly of two species - *Salicola australis*  
 and *Enneapogon nigricans* with *Neurochloa* spp  
*Boehavia diffusa* and *Wahlenbergia gracilis* as  
 occasional.

- 389 *Nargyloa homestead.*

- 8291 Flood creek association - *Acacia cyparophylla*  
associates, along the east bank of the Ward Warri  
creek. Sand ridges present with flood channels  
from the creek throughout. Dominant pasture  
species being *Atriplex nelsoni*, *Chloris truncata*  
*Salsola Kali*, *Boerhaavia diffusa* and an *Helipterum*  
sp. Pasture as a whole, poor, with little density  
of cover.

- 8399 <sup>Wentworth 20, N. 100 yds. from top,</sup>  
 Little Dongra flood plain. A grey self-mulching  
 silty soil evident overlying a sand bed. Pasture  
 relatively sparse. *Panicum decompositum* and *Atriplex*  
*flaccida* *passiflora*, *Urtica* *guttata*



spongiosa being the main spp. with odd bushes of *Kochia aphylla* present confined mainly to the edges of Little Dingers creek. Trees lining the creek being *Eucalyptus coolibah* & *Cremophila maculata*.

8400 A number of small aggregations of 5<sup>th</sup> instar *lh. terminifera* hoppers. [sand plain]

8404. Similar setup as for 8400.

8407 Big Dingers creek. Large flying swarm of *lh. terminifera* present Nth of the creek crossing. This swarm extended apparently for the next 2 miles. The day being extremely hot little activity was evident except when flushed by the moving truck. The majority of members of this swarm appeared to have newly moulted. Area affected being gibber downs type of country with predominant pasture spps being *Bassia* and *Atriplex spongiosa*. The little movement within the swarm seemed to be S.E.

8417 Bransby Homestead.

8442 Camped for night. A narrow gibber plain between a creek and rising sand hills. plain from  $\frac{1}{4}$  -  $\frac{1}{2}$  mile wide. Pasture scattered being composed of *Bassia* spp. [?] *Eragrostis latifolia*? and *Arctostaphylos leptocoma* with odd clumps of *Patrella lappacea*, *Calotea hispidula* and *Portulacca* spp.



8445

Sand hill formation — *Acacia aneura* association. Trees *A. aneura*, *Podocarpus* and a glaucous *tremophila* spp. Pasture composed chiefly of *Strophia perichloa* with odd bushes of *Bassia bicoloris*. Some gibber stones being exposed at the base of the sandhill suggesting perhaps that the area was formerly gibber plain but encroaching sand has since been permanently stabilized.

8451

Common - Kirk V coll.

*Chorizandra tenuifera*  
*Stenobothrus, limosa*

8467

*Noctuidae*. From 8442-8451. 07 flying swarms [not dense] were observed. 22 miles to the S.W. of Noctuidra gibber flats are traversed by at least 7 flood creeks and as such has possibilities of constituting an out break area. [see report]

News this day from Const. Kearney. Can't get within 10 miles of Durham Downs. Route to Torrache Creek impassable. Rain has fallen somewhere between Noctuidra and Ki-hee stations. Kearney advises not to take any risks with the Cooper flood plain creek rising. A week ago Creek at Durham Downs was 3ft rising. Now stands at 5ft still rising.

8472

~~8472~~

Out break centre complex [see report] *Stenobothrus*  
*g. thulosa*

8476

*Eucalyptus* — *Acacia* associes. — flooded sand plain area. Trees *Eucalyptus ocelliphila* and *Acacia* spp. Pasture extremely sparse consisting of *Chen. aeneorum* in shallow hollows with some *Crag. f. apocis* in isolated tufts. Samphire flats present but clouds of mosquitoes



made collecting from this area impossible.

8480

Nechalunga Homestead. [8488 - back to 8489 - then on to 8488 - 8490. Express through to Ki-hee.

8488

Notes on 82/88 (d). Common - Kirk coll.

8498

8510

Camped Ki-hee Homestead. Next day straight through to Cooper's Creek area. This allowing for picking of collecting sites for the return run that should be satisfactory to all the various collectors.

8569

First channel of Cooper's Creek. Water running in this channel. End of the forward trip. Heavy storm threatening. returned to sand hill area at 8581.

8581

Camped on sand hill area on the edge of the flood plain. Trees. *Acacia aneura* with odd trees of *Allocasuarina hemiglaucoides*. Pasture tussocky, *Eragrostis setifolia* and *Chistide calycina*.

8586

Woomoonooka [ruins].

8593

Lunch. Gribbler lateritic hills. Stunted *Allocasuarina hemiglaucoides* with odd trees of *Eucalyptus ochrophloia* present. Main species being *Acacia tetragonophylla* and dead *Acacia aneura*.

Between 8591 - 8602, 13 swarms of *Ch. terminifera* observed and between 8608 - 8630 another 6 flying swarms seen.

8608  
= 8634

Camped on rocky range. Passed camp by 13 miles - had to return to same at 8634 - 8608.



Stony lateritic hills with a creek on the gully.  
Creek area containing *Gyneros* spp and *Eulalia fulva*.  
On the rocky hills, *Salicola australis* with *Eragrostis*  
*nigrescens* being dominant, with odd plants of *Bassia*  
*bicornis* present. <sup>*Chorizandra tenuifera*</sup> Trees along the creek consisting of  
*Eucalyptus pyrophora* and *Grevillea striata* with an  
occasional *Alcalya hemiglaucosa*. On the stony hills  
*Acacia tetragonophylla* dominant with an odd tree of  
both *Eucalyptus pyrophora* and *Acacia aneura*.

8648 Turn off to Ki-hee through Bundena.

8651 Ki-hee homestead.

8662 Flood creek area. Trees - *Commersonia* lining the  
creek with *E. pyrophora*. *Nakea Georgi* and small clumps  
of *Exmophila* away from creek bank. Pasture - dense,  
green and tussocky, composed of *Eulalia fulva*, *Eragrostis*  
*setifolia* with *Malvastrum spicatum* and *Heliotropium* spp  
as occasional.

8672 Bore - 5 miles N.E. of Nochatunga - flat sand plain area adjacent  
to creek area. Pasture - green cover of *Verbena* spp with  
odd plants of *Eulalia fulva* and *Asterella laffae* in isolated  
shallow depressions.

8677 Nochatunga Homestead. Express through to Bransby.

8693 Nocondara.



8700 Camped in sand hill. 7 miles S.W. of Nocandera.

8722 Bransby Homestead. express to Turn off from Narylees-  
Bransby Rd to Tichalora.

8762 Turn off at Little Dingera creek to Tichalora.

8766. *Acacia aneura* association - sandhill formation.  
*Atalaya hemiglaucæ* dominant with *Acacia cyperophylla*  
as the prominent under shrub together with *Dodonaea* spp.  
Pasture being extremely low in density. The cover present  
composed of *Salicola australis*, *Trichinum obovatum*,  
*Salicola Kali*, *Sida* spp and a *Bassia* spp (large woolly head)  
Sand hill running NE-SW about 200 yds wide.

8780. Crest of Grey range 6 miles W. of Tichalora. Rocky hills  
with a good low timber cover of *A. aneura* (narrow leaf)  
*Chorizandra tenuifolia*, *Austrocyathus integrifolius*  
with odd shrubs of *Acacia tetragonophylla* and stunted  
*Atalaya hemiglaucæ*. Pasture - mainly *Bassia divaricata*  
*Trichinum obovatum* with some tufts of *Eriacopogon*  
and *Astrelia lappacea*.

8786 Tichalora Homestead.

8800

Edge of Bulloo overflow. [see notes re. outbreak area]

8802

Flood creek leading into Bulloo. *Chorizandra tenuifolia*, *Acacia aneura*  
dominant along the edge of the creek with odd clumps of  
*Eragrostis setifolia* and *Chloris truncata*. Away from



The creek *Atriplex farinosa*, *Malvastrum spicatum* and *Cercopetia* spp. Soil. grey self-mulching loam.

8810

Sand ridge — *Eremophila* spp. dominant. Little pasture except for a large yellow-flowering legume.

8812

Pyramidal Homestead.

8816

Border fence. Gravelly downs. — Treeless. *Bassia lanicuspis*, *Bassia divaricata*, *Chorizanthe tenuiflora*, *Atriplex spongiosa* with clumps of *Atriplex leppacea*, constituting the pasture. Pasture commencing to dry out.

8822

Rocky hill. Odd *Acacia cambagei* present at the base of the hill. *Bassia divaricata* dominant, with odd clumps of *Atriplex spongiosa* and *Salsola australis*.

8839

Gravelly downs. — Pasture dry off *Atriplex spongiosa* and *Bassia divaricata*. Area treeless.

8853

Tibrooburna. Collection from rocks — *A. aneura* corub 1 inch. *Chorizanthe tenuiflora*. Sth. of the town area.

8858

Left Tibrooburna. *Bassia divaricata* and *Salsola australis*.

8892

*Atriplex vesicaria* — *Kochia setifolia* association. Site on a Basalt-Quartzite ridge. Dominant pasture species on the crest of the ridge being *Atriplex vesicaria* and *Eremophila nigricans*. As one proceeded down the slope *Atriplex vesicaria* gave way to *Kochia setifolia* with odd clumps of *Eragrostis Dielsii* and *Atriplex spongiosa*. Creek nearby with *Eucalyptus camaldulensis* lining its



banks. away from the creek but not on the slope  
several large trees of *Quercus striata* were present.  
Ch. *terminifera* in solitary phase evident.

- 8877 *Lyallia (Lycium banyanensis)* association on a Quartzite ridge. Dense cover of *Atriplex spongiosa*, *Bassia lanicuspis*, *Bassia* ~~divaricata~~ with small patches (in sandy places) of *Encarpus nigricans*. Trees *Acacia banyanensis*. Few solitary phas. Ch. *terminifera* present.
- 8892 *Melpomene* Creek area. Sand plain. Pasture: - *Eulalia fulva*, *Veronica* spp., *Atriplex spongiosa*, *Eleocharis militensis*, *Eragrostis* *laevis* with some *Astilbe pectinata*. Density of plant growth scattered. Odd Ch. *terminifera* present.
- 8889 *Lathyrus* hill. Few *Acacia anura* present with an occasional shrub of *Acacia tetragonophylla*. Pasture thin in density consisting of *Atriplex spongiosa*, *Salicornia australis*, *Encarpus nigricans*, some *Arctostaphylos* *leptopoda*, *Bassia lanicuspis* with an occasional bush of *Kochia sedifolia*. Few flying Ch. *terminifera* present.
- 8895 Flood plain 13 miles Sth. of *Melpomene*. Heavy self-mulching soil with few trees present along a shallow flood channel. These being *E. cammaldulensis* and *E. coolibah*. Away from the creek *E. coolibah* appeared only. Pasture light in density. *Atriplex spongiosa*, odd clumps of *Eragrostis japonica* and *Astilbe lappacea*. In deeper depressions *E. anura*, *auricomum* dominant with *Lepidium*

- 8992 *Melipangitia* <sup>Red Top - 1000 ft. Sand plain, Pasture: -</sup>  
*Eulalia fulva* <sup>Verlana spp. *Strophis* *Plantana*</sup>  
*multensis* <sup>*Umea gutturalis*</sup>  
*pectinata*. Density of plant growth scattered. Odd  
*Ch. termomifera* present.

- 8889 *Lateritia* *hull.* <sup>*Desmodium illinoense* *Desmodium illinoense* *Desmodium illinoense*</sup> *For* *Acacia anura* present with an occasional shrub of *Acacia tetragonaphylla*. <sup>*Callitriche* *Callitriche* *Callitriche*</sup> Pasture thin in density consisting of *Atriplex spongiosa*, *Salix australis*, *Ernaopogon nigriscens*, some *Arctida leptopoda* *Bassia lanicuspis* with an occasional bush of *Rochia sedifolia*. *For* flying *Ch. tenuifera* present.

- 2895 Flood plain 13 miles S.W. of Milpamka. Heavy self-mulching soil with few trees present. Long & shallow flood channel. *Phragmites* <sup>*Phragmites pectinatus*</sup> ~~*pectinatus*~~, *Chorizanthe* <sup>*Chorizanthe terminifera*</sup> ~~*terminifera*~~ and *E. cammaldulensis* and *E. coelibah*. Away from the creek *E. coelibah* appeared only. Pasture light in density. *Atriplex spongiosa*, old clumps of *Eragrostis japonica* and *Astrela lappacea*. In deeper depressions *E. hornei*, *auricomum* dominant with *Lepidium*



lysocephalum. Only species present being *Bh. terminifera*  
Old dead bodies of *Porylitrona* spp. seen.

8909

*Acacia aneura* association. Trees: *Acacia aneura*, *Atalapha hemiglaucoides*. Sandhill formation. Pasture sparse. *Eragrostis Dulacii*, *Boerhaavia diffusa*, *Salsola Kali*. Dominant species being a large white composite. (specimen).

8919

*Lebhum Lake* - camped. Sand hill formation & *Acacia aneura* association. Only trees present being several stunted *Atalapha hemiglaucoides*. Pasture - mainly *Salsola Kali*, *Boerhaavia diffusa*, small tufts of both *Eriosepogon* spp and *Eragrostis japonica*. The large composite as in 8909 also present and dominant. Few adult *Bh. terminifera* present.

8927

*Acacia aneura* association. Trees: - *Acacia aneura*, *Acacia tetragonaphylla* and an odd shrub of *Comophila* spp. Pasture on the flat almost a pure sward of *Eriosepogon nigricans* with odd plants of *Chloris truncata* and *Salsola Kali*. On a nearby sand ridge *Atriplex fuscicarpa*, *Salsola Kali* with some *Arctostaphylos* present. Dominant species here being the composite spp as for 8909. Few adults of *Bh. terminifera* present.

8938

Gravelly downs. *Atriplex versicolor* association. Small scale areas present covered with fine quartzite gravel. Pasture an even dense sward of *Eriosepogon nigricans* with tufts of *Eragrostis Dulacii* and *sedifolia*. *Stipa* spp. growing in scattered tufts in close and on scald areas.



8948 Gravelly downs — *Atriplex canescens* association. Little vegetation present it being *Atriplex spongiosa* and a *Bassia* spp. *Ch. tenuifera* present in the solitary phase. *Rhus* in the fence posts. *Platanus* winged male seen.

8954 Sacksaddle Mt. Sand & Sandstone hill with shale scalds at the base. *Eriogonum fasciculatum*, *Quercus agrifolia* with odd clumps of *Stipa setacea* being the pasture. As one ascended the Mt. *Bassia lanuginosa* became the dominant, thinly scattered pasture on the lateritic outcrop of the hill.

8966 *Acacia anura* association. Trees. *A. anura*, few *Dodonaea* and *Eremophila* trees. Pasture. *Salicella Kali*, *Eriogonum fasciculatum* — these spp. being dominant. A sandy ridge present with small gravelly scalds on the flat area.

8974 *Acacia anura* association — Soil slightly sandy but compact. Trees. *Acacia anura*, *Hakea laevis* and dead *Eremophila*. Pasture — *Atriplex* spp. (annual) *Boerhaavia diffusa*, *Bassia lanuginosa*, and *Eriogonum fasciculatum*. Excellent ground cover of herbage. Remains of old *Kochia sedifolia* bushes evident.

8996 *Austroicetes interioris*. *Acacia anura* association. *Acacia anura*, *Hakea laevis*, *Eriogonum fasciculatum*, *Stipa setacea*, *Boerhaavia diffusa*, *Bassia lanuginosa*, and *Eriogonum fasciculatum*. Excellent ground cover of herbage. Remains of old *Kochia sedifolia* bushes evident.

9006 Gravelly downs. Large nos. of *Sorghastrum nutans*, *Pelaea*, *Platanus* spp. Pasture *Atriplex spongiosa* with odd clumps of *Stipa setacea*. *Astilbe latifolia* in crevices. *Calcephalus* spp. dominant pasture spp. but in a dry state.



9011. Creek area in gravelly downs. *Atriplex vesicaria* - *Koeberia setifolia* association. *Atriplex spongiosa* and *Bassia brachyptera* being dominant pasture spp. present. Creek lined with *Cercocarpus* trees.

9017. Gopher downs. - shallow washaway and with *Koeberia setifolia* in odd clumps lining the bank about 1 bush depth. *Austroicetes nullarborensis* On stony downs and gully *Atriplex* spp. dominant. On crest of rise *Eriogonum* spp. dominant with *Calceolarias* spp. present as an occasional. *Ch. tenuifera* present in the solitary phase. *Proelia* *maculosa*, *Apotropeis* sp., *Pestellia*

9022  
9028 =  
9037

Passed camp area and had to turn back 9028 - 9037  
Flood creek area. Pasture present dense along the creek bank. - *Atriplex* spp. (annual) *Koeberia tomentosa*, *Gentiana melitensis* and *Emmenanthe* spp. present. away from creek area sandy with little or no vegetation present.

9055  
~~9056~~

Yancey Hotel.

? 9080 Stephens Creek. Trip into Broken Hill - back - 9080.

? 9090 Broken Hill.

9122 Left Broken Hill 21/4/49.

9131 Mt. Lypps. Gopher hills. Thin cover of *Eriogonum* spp. Saffron Thistle with odd bushes of *Koeberia setifolia* and *Atriplex vesicaria*. Trees present consisting of stunted *A. aculeata* and *Eremophila* spp. High wind blowing making collecting



difficult.

- 9151 Open treeless plain - red self-mulching soil with scattered areas dotted with fine stone. Dominant pasture being a small paper flowered composite (dry) with an occasional clump of *Atriplex elymoides* & *Kochia aphylla* bushes. Bb. *Terminifera* present in the solitary phase.

- 9165 Open flat plain - Trees - *Eremophila* spp. shrubs being scattered. Soil - compact red loam with the surface studded with fine gravel. Pasture scattered thorn with *Atriplex spongiosa* dominant, other components appearing being *Boerhaavia diffusa*, *Bassia divaricata*, *Eragrostis japonica* and *Dalzielia*. *Terminifera* again present in the solitary phase.

- 9171 *A. anura* association - Trees - *Acacia anura* and odd *Eremophila* spp. Pasture - Mainly *Atriplex spongiosa* and a short cover of *Eragrostis Dalzielii* with odd plants of *Stipa setacea*, *Bassia lanceuspis* and *Salicola Kali*.

- 9181 *A. anura* association. - Soil formation of *A. anura* with an odd tree of *Casuarina lepidophloea* - *Eremophila* spp. Pasture - dense dry stand of *Mimosa* spp. with an under cover of small *Stipa* plants. *Abutilon octocarpum* - *Salicola Kali* appearing as occasionals. Soil sandy. Bb. *Terminifera* on the solitary phase - all flyers.

- 9191 *A. anura* association - Soil red & sandy. Trees - *Acacia* and *Eremophila*. Pasture thin and scattered consisting of *Stipa setacea*, *Atriplex spongiosa*, *Bassia uniflora* and



Tufts of *Eumecopogon nigricans*, with an occasional bush of *Koehia aphylla* and *Eragrostis sedifolia* studied throughout the area.

9195 <sup>Moriba 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000</sup> Dolo hill range - Rocky hills up to 150-200 ft high, covered with *Acacia aneura*. Little pasture present but *Eumecopogon* *flavescens* to be found amongst the rocks on the slope. Near the crest some plants of *Digitalis* *Brownii* were evident. Most of the mulga being dead. *Austrocyathus interioris*

9201 Same range as for 9195 - hills here lower and similar to the gibbet downs. Timber present consisting of stunted *Casuarina lepidophloea* - *Retrodendron octophyllum* with an under cover of *Bassia divaricata*, *Koehia aphylla*, with other bushes of both *Koehia sedifolia* and *Atriplex vesicaria* occurring as occasionals.

9212 *Koehia sedifolia* association. Trees - *Flindersia maccullochi* on open woodland formation with a dense cover of *Koehia sedifolia* as an undercover. Soil - red self-mulching soil similar to the red myall type. Entire absence of grasshoppers. 1 *Oedipus* male seen but not captured. Extremely high wind blowing.

9225 *Acacia aneura* association - Trees *A. aneura* with an occasional stunted *R. octophyllum*. Pasture - dominant species being *Stipa sp.* with *Eumecopogon*. Herbage appearing as occasionals being *Bassia* spp. (round woolly head) and *Abutilon octocarpum*. Soil compact red loam. Ch. *Termitis* both on flying & 3rd instar stage. Solitary phase population



- 9231 | Stony hill - *Acacia aneura* association. Trees - *Acacia aneura* with an occasional stunted bush of *Acacia tetragonoptera*. Pasture low in density with large gibber seeds present. <sup>*Austroblechnum intermedium*</sup> Dominant pasture spp being *Bassia uniflora* with odd scattered plants of *Trichunum obovatum*, *Eumecopogon*, *Arctostida perichensis*, *Stipa setacea* and odd clumps of *Eragrostis setifolia*. *Ch. terminifera* present in the solitary phase
- 9241 | Wilcannia. Campus 1/2 mile on eastern bank of River Darling.
- 9246 | Left Wilcannia
- 9253 | *Atriplex vesicaria* association. Heavy grey self-mulching soil. Pasture sparse consisting of *Atriplex spongiosa* with some *Atriplex vesicaria* (numerous germinations of both species present) Water under all the bridges suggests that probably the whole area had recently been flooded. No grasshoppers present except for odd flying *Ch. terminifera* and some 2nd instar hoppers.
- 9266 | *Basuarina lepidophylla* - *Heterostemon oleophilum* association. <sup>*Austroblechnum intermedium*</sup> Trees - *Het. oleophilum*, *Bas. lepidophylla* and *Hamata*. Dominant under shrub being *Eumecopogon* spp. Soil compact loam raised in small dunes especially around fallen timber. Pasture of even density, consisting of *A. spongiosa*, *Eumecopogon*, *Salsola* *Kali* with a dense mat of *Boerhaavia diffusa* in shallow depressions throughout the area. *Cenchrus melitensis* growing in the table down. Solitary phase *Ch. terminifera* present.



- 9274 *Acacia amara* association. Trees present *A. amara*, *Flindersia maculata* with an occasional *Het. oleifolium*. Pasture on a red compact loam consisting of a tall stand of *Stipa setacea*; other herbage occurring as occasional being *Salicola Kali* - *Boerhaavia diffusa*.
- 9286 Stony gibber hill - *A. amara* association. Trees *A. amara* with occasional *A. tetragonaphylla*. Pasture scattered clumps of *Barrua lanicuspis* with odd plants of *Atriplex spongiosa*.
- 9291 Lunds: *A. amara* association. Trees *A. amara*, *Boerhaavia diffusa*, *Peckia fusiformis*, *A. amara*.
- 9301 *Baruana* - *Heterodendron* association. Trees - *Het. oleifolium* dominant with an odd *Hakea laevis*, *Juniperus* in light cleared scrub formation. Soil red compact loam. Pasture - *Atriplex* (annual) *Salicola Kali*, - *Barrua lanicuspis* in isolated clumps.
- 9311 *Het. oleifolium* - *Baruana* association. Trees *Het. oleifolium* *Baruana* with an occasional *Cas. lepidophylla*. Pasture a sparse mixture of *Eragrostis Dalsii* - *Atriplex furcata*, with large patches of young *Salicola Kali*.
- 9322 *Baruana lepidophylla* - *Het.* association. Trees - *Baruana* *Het. oleifolium* with some *Cremophila* spp. - *A. amara* as an occasional. Soil red compact loam. Pasture not very dense due to the heavy cover of trees; main species present being *Barrua uniflora* - *Barrua* spp. - *Salicola Kali* with odd tufts of both *Stipa setacea* - *Eragrostis redifolia*. *Boerhaavia diffusa* present along the table drain.



9371 <sup>*Didalium australe, Acletolepis tanniana,*</sup>  
*Casuarina* - *Heterodendron* association. Trees present being  
<sup>*Austrobaileya interioris*</sup>  
*Het. oleosum* (dominant), *Casuarina* and an odd *Geijera*  
*parviflora*. Soil red loam - gilgai shelf complex. Shelf area  
 scalloped with stunted scattered tufts of *Stipa setacea* present;  
 a *Goodenia* spp. Gilgais carrying a dense tussocky stand  
 of *Eragrostis sedifolia* and *Benthamia melitensis*. Soil and  
 herbage cover ideal as an outbreak centre complex. The  
 tree cover however is probably the limiting factor as to its  
 effectiveness as such.

9372 <sup>9379</sup> At bunched. *C. pop. glauca* association. Dominant  
 trees *C. intertexta*, *C. melioidora* - some *C. Blakelyi*.  
 with an occasional *Geijera parviflora*. Soil sandy.  
 Trees large up to 80ft in parkland formation with  
 practically no undergrowth. Dominant pasture being  
*Stipa pulchra*.

9349 <sup>*Callitula sp., Moraba asinus*</sup>  
*Casuarina* - *Heterodendron* association. - Trees - *Het. oleosum*  
 some *C. populifolia*, *Casuarina lepidophloia* with an  
 occasional *Cremophila Mitchellii* and *Geijera parviflora*.  
 The pasture here particularly thin and thin confined  
 to cleared areas only. Most of the area covered with red  
 small ironstone galls. Pasture. *Stipa setacea* in  
 clumps with some *Erag. Dielsii* & *Salsola Natal.*

9359 <sup>*Austrobaileya interioris*</sup>  
 Open area - ectonatal between *Casuarina* & *Heacium*  
 association. Trees: - *Casuarina lepidophloia*, *C. glauca*  
*Geijera parviflora*, *C. oleosa*, *Het. oleosum*, & *Alphophyllum*  
*anomolium*. Tree area fairly dense, adjacent to a  
 cleared area. Pasture not existent under the trees.



On the cleared area the pasture being particularly thin & scattered, chief of which was *Chloris truncata* and *Eriosepogon nigricans*. *Centropogon melitensis* was present along the table drain and also through the pasture in patches. The dominant sp. however was a small white paper-leaf daisy, but in a dry state.

9268 Stony ridge. Trees - *Contertoctes* & *glauca* *A. umbra*. Pasture - the area being extremely bare except for isolated patches of *Arctida pericallis* and *Crag lacunaria*. On the slope of the ridge a few heavily grazed tufts of *Crag. sedifolia* were evident. Much fallen timber present. No sign of any grasshoppers, not even *C. h. terminifera*.

9280. Gibber slope - This area being covered to a large extent by red ironstone gibbers small in size. <sup>*Didalys auspatia*, *Qualitta maculata*, *Pycnostictus serripes*, *Chortocentrus terminifera*, *Austroicetes arida*</sup> The area having a light cover of paper leaf-daisy.

9291 Lunch.

9299 Latent hill :- Timber *Gesperia parviflora* with an odd stunted *Casuarina* and *Findleria maculata*. Hill bare & stony except for a light cover of *Stipa fulcata* & some *Chloris truncata*.

9309 Robert.



941.

*Euphantus* sp., *Didalvus australis*,  
 Stony hill - *E. populifolia* - *Acacia* association -  
 Trees - odd *E. populifolia*, *Peucephyia fuscocomaculata*,  
*Austroicetes interioris* *Acacia* *interioris*  
*Geisera* *parviflora* with an occasional *Hopphyllum*.  
 Pasture patchy, mainly confined to numerous small  
 gullies & depressions as a result of erosion on the slope  
 of the hill. Dominant pasture species being *Dumetia*  
*Stipa setacea* with an occasional plant of  
*Bassia uniflora*.

942b

*Macrolophosia* sp., *Leucosora* 78, *Euphantus*  
 Mt. Bephy - Hill 1200 ft high steep & stony.  
 Trees - *C. glauca* with *Hexaloba* in a few  
*anacardium*, *Qualefita maculata*, *Pycnostictus*  
 instances at the base of the sharp rise. A stunted  
*acardium*, *Peucephyia fuscocomaculata*,  
 lucid light being present on the slope - crest of the  
*Opuntia* sp., *Peucephyia fuscocomaculata*, *Macrolophosia*  
 mountain. Hair cover of pasture being mainly  
*Securifolius*, *Macropus* sp., *Acacia* sp.  
*Digitaria* *Brownii*, *Ernea pogen flavescens*.

943b

*Didalvus australis*, *Qualefita maculata*  
*E. popl* - *C. glauca* association. Trees *E. populifolia*  
*C. glauca*, *E. intertexta*, an occasional *Garran*.  
 Area heavily timbered, soil wet & compact. On a  
 small cleared area, patches up to 20 ft in diam.  
 supported a cover of *Arctida* *Berthamii*, *Arctida*  
*calycina* and *Chloris truncata*.

945b

*Pycnostictus acicarpus*, *Peucephyia*  
*E. populifolia* - *C. glauca* association: - heavily timbered  
 area - *Peucephyia fuscocomaculata*, *Acacia* sp., *Austroicetes*  
 Trees *E. populifolia*, *C. glauca* with an  
 occasional *Erma phila* *Mitchelli* & *Hopphyllum*.  
 damp situation: Area away from the road  
 having been lightly cleared. A good grass or  
 pasture has been maintained even under thickly  
 growing trees. A few small ericoid mainly on the



cleared area. The pasture consists of *Stipa fulcata*,  
*Danthonia* and tussocks of *Arctida calycina*.  
*Ch. terminifera* present in the solitary phase only.  
*Macrotona* present as nymphs in the *Arctida* tussocks.

9466. E. pop. - *C. glauca* association. <sup>*Macrolopholia* sp., *Leucocarpus* sp., *Qualetta*  
*maculata*, *Peckia fuscomaculata*</sup> On slope of gravelly  
hill. Trees scattered being *E. populifolia*, *A. coarctata*,  
*Eremophila Mitchellii* with an occasional *Cassia*  
(wild orange). Pasture patchy: red gravelly scalds  
present. Pasture in patches dense & tussocky consisting  
of *Arctida calycina*, *Stipa fulcata* with clumps  
of *Dicranthum sericeum* & *Bassia uniflora*.

9476 E. pop. - *C. glauca* association. <sup>*Pycnostictus seriatus*, *Peckia*  
*fuscomaculata*</sup> ~~wooded area:~~  
*E. populifolia* - *Opuntia parviflora* - *Eremoph. Mitchellii*  
with an occasional *E. intertexta*. Pasture thin &  
sparse being made up of *Stipa fulcata*, *Bassia*  
*uniflora*, *Salicola Kali* & clumps of Saffron Thistle

9489 Nyngan —